

Technical Data Sheet Perlite P-25

Perlite P - 25

Perlite is a volcanic material that forms from silica-rich rocks. When heated to high temperatures (850-1,000 °C), these rocks expand and become small, white, light particles with a foamy texture.

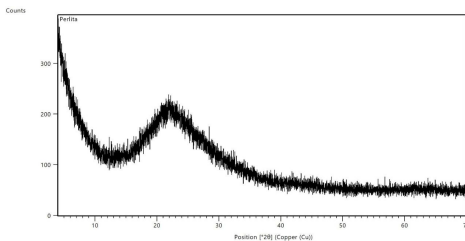
Uses of Perlite

- **Substrate in gardening and hydroponic crops.**
- **Thermal and acoustic insulation in construction.**
- **Improvement of light concrete and insulation products.**
- **Absorbent of oils and chemical products.**
- **Filler in cosmetics and pharmaceuticals.**
- **Improves soil aeration in agriculture.**
- **Hydroponics.**
- **Textile washing.**

Packaging and preservation

Perlite can be packed in 100L bags and in big bags. In 100L format, a pallet can contain 40 bags. In big bag, it can be loaded in 1m³ format, with two 1m³ big bags per pallet. It is recommended to store perlite in a cool, dry and well ventilated place.

Mineralogical composition



100% perlite material Figure 01. Diffractogram

Environmental impact

- **Sustainability:** natural and abundant material, non-toxic.
- **Recyclability:** Can be reused in applications such as substrates or fillers.
- **Environmental effects:** Does not generate hazardous waste. Low ecological impact during its useful life and disposal.

Physical properties

Colour	White
Real Density	61,5 kg/m³
Melting Point	1.260 - 1350 °C
Softening Temperature	871 - 1.093 °C
Humidity	< 0,5 %
Humidity Absorption	< 10 %
Calcination	<1,5 %
Thermal Conductivity	0,04 - 0,06 W/mK 24°C
Specific Heat	0,84 kJ/kgK
PH	6 - 8
Ignitable	No
Asbestos	Asbestos-free

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Dry Granulometry

Initial mass: 100

Sieve (µm)	% Retained	Sieve Weight	Retained Weight	% Cumulative Pass
4	0	565,6	0	100,00
3,15	0,6	551,9	1,2	98,80
2	29,7	532,9	59,4	39,40
1,6	10,6	514,2	21,2	18,20
1	6,85	487,3	13,7	4,50
0,8	0,8	471,2	1,6	2,90
0,5	0,45	460,5	0,9	2,00
0,250	0,35	436,8	0,7	1,30
0,125	0,35	427,6	0,7	0,60
0,063	9,65	421,1	0,6	0,00
0	0	344,5	0	0,00

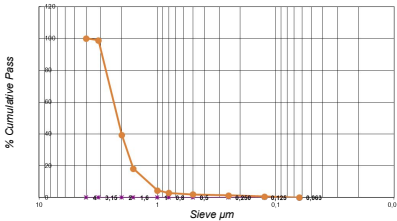


Figure 02. Granulometry Perlite P-25
(% Cumulative Pass)

For P-25: Mean particle size: 1-4 mm (reference value)

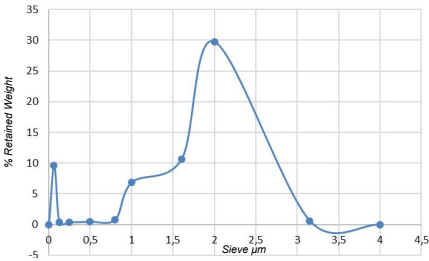


Figure 03. Granulometry Perlite P-25
(% Retained Weight)

For P-25: Mean particle size: 1-4 mm (reference value)

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Chemical composition

Composition	Wt%	Est. Error	Element	Wt%	Est. Error
SiO ₂	76,11	0,47	Si	35,58	0,22
Al ₂ O ₃	12,43	0,37	Al	6,58	0,19
Na ₂ O	4,70	0,23	Na	3,49	0,17
K ₂ O	3,21	0,06	K	2,67	0,05
Fe ₂ O ₃	1,28	0,12	Fe	0,896	0,09
CaO	0,535	0,06	Ca	0,383	0,042
CuO	0,148	0,0021	Cu	0,118	0,0017
TiO ₂	0,0897	0,0023	Ti	0,0538	0,0014
MnO	0,0708	0,0039	Mn	0,0548	0,0030
ZnO	0,0211	0,0009	Zn	0,0170	0,0007

9955360 Rh 60KV LIF200 LIF220 Ge111 AX03

Method : X_UQ

Kappa List : Pastilla General

Shapes & ImpFc : Teflon

Calculated as : Oxides

Case Number : 0 = All known

Reporting Level > 100 ppm and wt% > 2Est.Err.

Measure time : 12/12/2024 13:48:27

X-ray Path: : Vacuum

Film Type : None

Collimator Mask : 2400 W

Viewed Diameter = 29.00 mm

Viewed Area = 660.19 mm²

Viewed Mass = 81.61 mg

Sample Height = 0.12 mm

Known concentration = 1.37 LOI

